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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

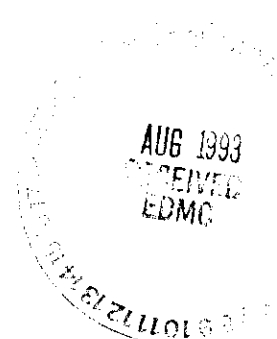
1200 Sixth Avenue  
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Reply To  
Attn Of: HW-106

July 27, 1993

Mr. Steve Wisness, Hanford Project Manager  
Office of Environmental Assurance,  
Permits, and Policy  
Department of Energy  
Richland Operations Office  
P.O. Box 550 (A5-15)  
Richland, Washington 99352



Re: Review of the Grout Treatment Facility Land Disposal  
Restriction (LDR) Compliance White Paper  
Environmental Protection Agency I.D. No. WA7 89000 8967

Dear Mr. Wisness:

The United States Environmental Protection Agency (EPA), Region 10, has reviewed the May 28, 1993 white paper from the United States Department of Energy-Richland Operations Office (Energy) regarding the Grout Treatment Facility Land Disposal Restriction (LDR) Compliance. The purpose of this letter is to provide comments on the white paper which outlines Energy's proposed methods for maintaining LDR compliance. The enclosed EPA comments address both general and specific comments on the white paper.

The EPA concurs with the approach in the white paper. The EPA believes that Energy must clearly demonstrate that grouting constitutes the Best Demonstrated Available Technology (BDAT) for heavy metals. In addition, it is not clear from the white paper that the grouted waste will be tested for LDR compliance. Therefore, the EPA will continue to review the chemical analyses (including organics) of all double shell and single shell candidate tank waste, as outlined in our response dated April 1, 1991, on a case-by-case basis, to ensure regulatory compliance with land disposal restrictions. Until the Grout Treatment Facility is determined to be BDAT, all double shell and single shell tank waste must meet applicable wastewater and nonwastewater land disposal treatment standards prior to treatment in the Grout Treatment Facility. If any additional information pertinent to the regulation of double shell and single shell tank waste becomes available, Energy must continue to inform EPA of any changes.

Please contact Daniel Duncan, Hanford Permit Coordinator, on  
(206) 553-6693 if any additional information is required.

Sincerely,



Michael Gearheard, Chief  
Waste Management Branch

cc:

Cliff Clark, Energy  
George Hofer, EPA  
Bob Cordts, Ecology  
Russ Murkowski, WHC

63-0000-0000

EPA COMMENTS ON  
GROUT TREATMENT FACILITY LDR COMPLIANCE WHITE PAPER

General Comments:

The white paper should also address the additional testing that will be conducted to ensure applicable LDR regulations are met after grouting of waste. It is not clear from the white paper that the grout will be tested for LDR compliance after treatment.

Specific Comments:

1. Page 1 of 10, Section 3.1, LDR Waste Acceptance Requirements:

- The reference to Subpart D of 40 CFR § 268 should specify 40 CFR §§ 268.40 through 268.46
- Regarding the Immobilization Technology: The reference to extraction and/or destruction is an overstatement of the regulation. This applies specifically to debris.
- Dilution is not permissible to meet a standard i.e. wastewater vs. nonwastewater.

2. Page 2 of 10, Section 3.1, LDR Waste Acceptance Requirements:

- The summary of 40 CFR § 268.44 should be changed to reflect the treatability regulatory language. The regulations state that the hazardous waste cannot be treated "through appropriate technology" may be eligible. "Through reasonable and available means" is not the regulatory standard.

3. Page 3 of 10: Table A. Applicable Treatment Standards for Grout Feed Compliance.

- Footnotes should be added to distinguish between TCLP vs constituent concentrations in Table A i.e. D002, D004, D006, D007 and D011 are TCLP concentrations, while F001 through F005 are constituent concentrations.

4. Page 4 of 10: Figure 1: Grout LDR Management Action Flowchart

- There is no explanation in Section 5.0 regarding the BDAT Assessment & Petition to support this portion of the diagram. Clarify if this is the "equivalent standard" approach under 40 CFR § 268.44.

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5. Page 5 of 10: Section 3.2, LDR Requirements for Grout Treatment and Disposal Units:
  - Clarify which standards will apply for the verification of the treated wastes which will be conducted in accordance with the waste analysis plan (40 CFR §§ 268.7 (b)(1), (2), and (3) and 268.7 (c)(2)).
6. Page 5 of 10, Section 3.3 LDR Requirements for Hazardous Wastes Generated During Grout Operations:
  - Clarify how the decontamination fluids and vault leachate will be treated to meet LDR requirements.
7. Page 6 of 10, Section 5.0, Waste Feed Acceptance Criteria.
  - Clarify the derivation of the waste feed criteria and the metal leach resistance of the final grouted material.
8. Page 7 of 10, Table C: Metal Stabilization Data.
  - All back-calculations to determine waste acceptance criteria must be compared with TCLP and total constituent concentrations in Table A.

## CORRESPONDENCE DISTRIBUTION COVERSHEET

**Author**

**Addressee**

Correspondence No.

M. Gearheard, EPA

S. Wisness, RL

Incoming 9305708

Subject: REVIEW OF THE GROUT TREATMENT FACILITY LAND DISPOSAL RESTRICTION  
(LDR) COMPLIANCE WHITE PAPER ENVIRONMENTAL PROTECTION AGENCY  
I.D. NO. WA 7 89000 8967

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